



PATENT  
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: )  
Mats BLÜCHER et al. ) Confirmation No.: 1714  
Application No.: 10/609,489 ) Group Art Unit: 3722  
Filed: July 1, 2003 ) Examiner: Willmon Fridie Jr.  
For: APPARATUS FOR CHIP )  
REMOVING MACHINING )

Commissioner for Patents  
U.S. Patent and Trademark Office  
**Customer Window, Mail Stop Amendment**  
Alexandria, VA 22314

Sir:

**PRE-APPEAL BRIEF REQUEST FOR REVIEW  
TO ACCOMPANY A NOTICE OF APPEAL**

In response to the Office Action dated October 10, 2006, the period for response to which extends through January 10, 2007, a Pre-Appeal Brief Review is requested in the above-identified application.

### Status of the Claims

In the Office Action dated October 10, 2006, claims 1-9 are rejected as follows: Claims 1-9 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Claims 1-9 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,599,050 to Sjöö (“Sjöö”).

The Amendment filed under 37 C.F.R. § 1.116 on August 3, 2006 has been entered by virtue of filing a Request for Continued Examination under 37 C.F.R. § 1.114 on September 25, 2006.

### Summary of Embodiments of the Invention

With reference to Figs. 1-3 of the instant application, in an embodiment Applicants' invention is directed to an apparatus for chip removing machining, including a first part 1 and a second part 15 coupled together by a coupling. The coupling includes two interacting surfaces 3, 17 and a clamping member 21 for forcing the surfaces together. The interacting surfaces are profiled with male members 19, 20 and female members 7A, 7B, respectively that are intercoupled to establish a firm locking of the first and second parts against each other. The first and the second parts are provided with aligned holes 5, 14 for receiving the clamping member. The male and the female members are oriented on the interacting surfaces such that the male and female members intercouple only in a single position. The orientation of the male and female members prevents the male and female members from intercoupling in another position.

As described at paragraph 0005 of Applicants' specification, an object of the invention is to provide a coupling between two tool parts, such that the coupling may transfer a large torque at the same time as the tool parts only may assume one single position in relation to each other.

As described at paragraph 0033 of Applicants' specification, the forming of a male member (e.g. elongate ridge 20) with a maximum extension thereof in a direction S3, ensures that the second part (e.g. cutting head 15) may only be mounted in one way on the first part (e.g. holder 1), which is realized by studying the groove configuration of the front surface 3 of the holder 1.

As described at paragraph 0035 of Applicants' specification, by observing the groove configurations of the front surface 3 and the support surface 17, it is realized that the only place where the elongate ridge 20 may be received is in the first groove 7A. Therefore, the risk of the cutting head 15 being mounted in an incorrect position is eliminated.

As described at paragraph 0036 of Applicants' specification, since the cutting head 15 may only be mounted in a single position on the holder 1, it is possible to arrange a cooling channel 11 in such a way that cooling medium coming out from the same is directed towards an edge portion 16 of the cutting head 15.

### **Arguments**

Claims 1-9 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. At page 2, the Office Action asserts that “[t]he limitations reciting the orientation of the male and female members is vague and does not further define the relationship between elements and raises questions under 35 U.S.C. § 112 (2).” At page 3, the Office Action goes on to assert that “[t]here is no clear structure recited to prohibit unwanted mating.”

Applicants disagree with the assertions of the Office Action and traverse the rejection under 35 U.S.C. § 112, second paragraph. Applicants submit that claims 1-9 fully comply with the requirements of 35 U.S.C. § 112, second paragraph. Claim 1, for example, recites “the interacting surfaces being profiled with male and female members, respectively that are intercoupled to establish a firm locking of the first and second parts”, “the male and the female members are oriented on the interacting surfaces such that the male and female members intercouple only in a single position”, and “the orientation of the male and female members prevents the male and female members from intercoupling in another position.”

Claims 1-9 are rejected under 35 U.S.C. § 102(b) as being anticipated by Sjöö. Applicants traverse the rejection. In contrast to Applicants' invention, Sjöö is directed to a tool coupling including a holder and a cutting insert adapter that may be connected with each other in multiple positions. As described at col. 4, ll. 11-28, and illustrated in Figs. 1-3 of Sjöö, the axial end surfaces of holder 1 and adapter 3 include serrations 12 and 16 respectively. The groove configuration of the respective serrations 12, 16 have a mutually adapted design, and are oriented parallel to each other. Displacement of a stud screw 5 in the center hole 17 brings the holder 1 and the adapter 3 together until the serrations 12, 16 are in complete engagement with each other.

As described at col. 6, ll. 19-24 of Sjöö, the tool coupling is symmetrical in relation to its longitudinal center axis 13, which means that the holder may be used both for tools of right-hand type and left-hand type. In certain special applications, for instance in connection with certain special types of turning, the adapter 3 may be rotated 180° relative to the holder 1. As stated at col. 6, ll. 25-26, “[T]his may be effected by the tool coupling according to the present invention [of Sjöö].” Thus, Sjöö clearly discloses a tool coupling including a holder and a cutting insert adapter that may be connected with each other in multiple positions.

Applicants respectfully submit that Sjöö does not teach at least the features of “the male and the female members are oriented on the interacting surfaces such that the male and female members intercouple only in a single position, the orientation of the male and female members prevents the male and female members from intercoupling in another position,” as recited in claim 1. As pointed out in MPEP § 2131, “[t]o anticipate a claim, the reference must teach every element of the claim.” Thus, “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Verdegaal Bros. v. Union Oil Co. Of California, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987).”

Moreover, Applicants submit that Sjöö teaches away from male and the female members intercoupling only in a single position.

Claims 2-7 depend from claim 1 and recite the same combination of allowable features recited in independent claim 1, as well as additional features that define over the applied reference. In consideration of the above, Applicants respectfully submit that claims 8 and 9 are also allowable at least for the following reasons:

Claim 8 recites “the axially irregular surface profile adapted to be received in a corresponding axially irregular surface profile of the holder surface at a first angular position about the center axis with respect to the holder surface; wherein the surface profile of the head surface precludes reception thereof in the surface profile of the holder surface at all other angular positions about the axis such that the head surface and the holder surface intercouple only in a single position and no other position.”

Claim 9 recites “the axially irregular surface profile adapted to be received in a corresponding axially irregular surface profile of the head surface at a first angular position about the center axis with respect to the head surface; wherein the surface profile of the holder surface

precludes reception thereof in the surface profile of the head surface at all other angular positions about the axis such that the holder surface and the head surface intercouple only in a single position and no other position."

**Conclusion**

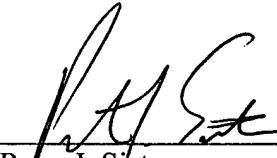
In view of the foregoing, Applicants submit that the outstanding rejections should be withdrawn, and claims 1-9 should be allowed.

Respectfully submitted,

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Dated: January 5, 2007

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